

WHAT IS CLAIMED IS:

1. A template comprising:
a mold having a plurality of protrusions and a plurality of recessions with a distance between a zenith of any of said plurality of protrusions and a nadir of any of said plurality of recessions being less than 250nm.
2. The template as recited in claim 1 wherein said plurality of recessions comprises a first set of recessions having a first depth and a second set of recessions having a second depth.
3. The template as recited in claim 2 wherein said first depth may be less than 250nm.
4. The template as recited in claim 2 wherein said second depth is greater than said first depth.
5. The template as recited in claim 1 wherein said template comprises silicon, silicon dioxide, silicon germanium carbon, gallium nitride, silicon germanium, sapphire, gallium arsenide, epitaxial silicon, polysilicon, gate oxide, quartz, or a combination thereof.
6. The template as recited in claim 1 wherein said template comprise a first and second side disposed opposite to each other, with said first side comprising said plurality of protrusions and said plurality of recessions.

7. The template as recited in claim 6 wherein said second side comprises a plurality of recessions.

8. A template comprising:
a mold having a relief structure on a first surface thereof, with said relief structure having a planarity less than 250nm.

9. The template as recited in claim 8 wherein said relief structure comprises a plurality of protrusions and a plurality of recessions with a distance between a zenith of any of said plurality of protrusions and a nadir of any of said plurality of recessions being less than 250nm.

10. The template as recited in claim 9 wherein said plurality of recessions comprises a first set of recessions having a first depth and a second set of recessions having a second depth.

11. The template as recited in claim 10 wherein said first depth may be less than 250nm.

12. The template as recited in claim 10 wherein said second depth is greater than said first depth.

13. The template as recited in claim 8 wherein said template comprises silicon, silicon dioxide, silicon germanium carbon, gallium nitride, silicon germanium, sapphire, gallium arsenide, epitaxial silicon, polysilicon, gate oxide, quartz, or a combination thereof.

14. The template as recited in claim 8 wherein said template further comprises a second surface disposed opposite to said first surface, with said second surface comprising a plurality of recessions.

15. A template comprising:
a body having a first surface disposed opposite a second surface; and
a plurality of protrusions and a plurality of recessions, disposed on said first surface, with a distance between a zenith of any of said plurality of protrusions and a nadir of any of said plurality of recessions being less than 250nm.

16. The template as recited in claim 15 wherein said plurality of recessions comprises a first set of recessions having a first depth and a second set of recessions having a second depth.

17. The template as recited in claim 16 wherein said first set of recessions may be less than 250nm.

18. The template as recited in claim 16 wherein said second depth is greater than said first depth.

19. The template as recited in claim 15 wherein said template comprises silicon, silicon dioxide, silicon germanium carbon, gallium nitride, silicon germanium, sapphire, gallium arsenide, epitaxial silicon, polysilicon, gate oxide, quartz, or a combination thereof.

20. The template as recited in claim 15 wherein said second surface comprises a plurality of recessions.